

Claims

- Sub b1*
1. An adhesive article comprising:
a facestock having a front surface and a back surface;
a continuous layer of adhesive having an upper surface and a lower surface and end edges, wherein the upper surface of the adhesive is adhered to the back surface of the facestock; and
a pattern of non-adhesive material forms embedded into the upper surface of the adhesive layer, each of said non-adhesive material forms having a top surface, wherein the top surfaces of the non-adhesive material forms are even with or below the plane of the upper surface of the adhesive layer.
- Sub b2*
2. The adhesive article of claim 1 wherein the non-adhesive material forms have an average thickness of about 30 nanometers to about 100 μ .
3. The adhesive article of claim 1 wherein the non-adhesive material comprises a UV curable ink.
4. The adhesive article of claim 1 wherein the pattern of non-adhesive material forms are applied by vacuum metalization or sputtering.
5. The adhesive article of claim 4 wherein the non-adhesive material forms have an average thickness of about 30 to about 3000 nanometers.
6. The adhesive article of claim 1 wherein the pattern of non-adhesive material forms comprises a plurality of dots, lines or combinations thereof.

7. The adhesive article of claim 6 wherein the lines of non-adhesive material have an average width of from about 12μ to about 250μ and an average thickness of from about 30 nanometers to about 100μ .

8. The adhesive article of claim 6 wherein at least 50% of the lines intersect the end edges of the adhesive layer.

9. The adhesive article of claim 6 wherein the plurality of lines form a grid pattern.

10. The adhesive article of claim 1 wherein the adhesive layer comprises a pressure sensitive adhesive.

11. The adhesive article of claim 1 wherein the adhesive layer comprises a heat-activated adhesive.

12. The adhesive article of claim 1 wherein the non-adhesive material comprises a porous non-adhesive material.

13. The adhesive article of claim 12 wherein the porous non-adhesive material comprises an elastomer.

14. The adhesive article of claim 1 wherein the article is wound so that the lower surface of the adhesive is in adhesive contact with the front surface of the facestock.

15. The adhesive article of claim 14 wherein the front surface of the facestock has a release surface.

16. The adhesive article of claim 1 further comprising a release liner having a release surface, wherein said release surface is adhered to the lower surface of the adhesive layer.

17. The adhesive article of claim 16 wherein the release surface of the release liner has a textured surface.

18. The adhesive article of claim 17 wherein the release surface has a random texture.

19. The adhesive article of claim 17 wherein the release surface has a patterned finish.

20. The adhesive article of claim 17 wherein the lower surface of the adhesive layer has a textured surface corresponding to the textured surface of the release liner.

21. The adhesive article of claim 16 wherein the release surface of the release liner has randomly distributed non-adhesive particulate material thereon.

22. The adhesive article of claim 21 wherein the randomly distributed non-adhesive particulate material is at least partially embedded into the release surface.

23. The adhesive article of claim 16 wherein the release surface of the release liner has a non-adhesive material printed thereon.

24. The adhesive article of claim 23 wherein the non-adhesive material printed on the release surface of the release liner is embedded into the release surface.

25. The adhesive article of claim 1 further comprising a second adhesive layer having an upper and lower surface, said lower surface adhered to the front surface of the facestock.

26. The adhesive article of claim 25 wherein a pattern of non-adhesive material forms is embedded into the lower surface of the second adhesive layer, each of said non-adhesive material forms having a bottom surface, wherein the bottom surfaces of the non-adhesive material forms are even with or above the plane of the lower surface of the second adhesive layer.

27. An adhesive article comprising:
a facestock having a front surface and a back surface;
a continuous layer of adhesive having an upper surface and a lower surface and end edges, wherein the upper surface of the adhesive is adhered to the back surface of the facestock; and
a pattern of non-adhesive material forms embedded into the lower surface of the adhesive layer, each of said non-adhesive material forms having a bottom surface, wherein the bottom surfaces of the non-adhesive material forms are even with or above the plane of the lower surface of the adhesive layer.

28. The adhesive article of claim 27 wherein the non-adhesive material forms have an average thickness of about 30 nanometers to about 100 μ .

29. The adhesive article of claim 27 wherein the non-adhesive material comprises a UV curable ink.

30. The adhesive article of claim 27 wherein the pattern of non-adhesive material forms are applied by vacuum metalization or sputtering.

31. The adhesive article of claim 30 wherein the non-adhesive material forms have an average thickness of about 30 to about 3000 nanometers.

32. The adhesive article of claim 27 wherein the pattern of non-adhesive material forms comprises a plurality of dots, lines or combinations thereof.

33. The adhesive article of claim 32 wherein the lines of non-adhesive material have an average width of from about 12 μ to about 250 μ and an average thickness of from about 30 nanometers to about 100 μ .

34. The adhesive article of claim 33 wherein at least 50% of the lines intersect the end edges of the adhesive layer.

35. The adhesive article of claim 33 wherein a plurality of lines form a grid pattern.

36. The adhesive article of claim 27 wherein the adhesive layer comprises a pressure sensitive adhesive.

37. The adhesive article of claim 27 wherein the adhesive layer comprises a heat-activated adhesive.

38. The adhesive article of claim 27 wherein the non-adhesive material comprises a porous non-adhesive material.

39. The adhesive article of claim 38 wherein the porous non-adhesive material comprises an elastomer.

40. The adhesive article of claim 27 wherein the article is wound so that the patterned lower surface of the adhesive is in adhesive contact with the front surface of the facestock.

41. The adhesive article of claim 40 wherein the front surface of the facestock has a release surface.

42. The adhesive article of claim 27 further comprising a release liner having a release surface, wherein said release surface is adhered to the lower surface of the adhesive layer.

43. The adhesive article of claim 42 wherein the release surface of the release liner has a textured surface.

44. The adhesive article of claim 43 wherein the release surface has a random texture.

45. The adhesive article of claim 43 wherein the release surface has a patterned finish.

46. The adhesive article of claim 43 wherein the lower surface of the adhesive layer has a textured surface that is complementary to the textured surface of the release liner.

47. The adhesive article of claim 42 wherein the release surface of the release liner has randomly distributed non-adhesive particulate material thereon.

48. The adhesive article of claim 47 wherein the randomly distributed non-adhesive particulate material is at least partially embedded into the release surface.

49. The adhesive article of claim 42 wherein the release surface of the release liner has a non-adhesive material printed thereon.

50. The adhesive article of claim 49 wherein the non-adhesive material printed on the release surface of the release liner is embedded into the release surface.

51. The adhesive article of claim 27 further comprising a second adhesive layer having an upper and lower surface, wherein the lower surface of the second adhesive is adhered to the front surface of the facestock.

52. The adhesive article of claim 51 wherein a pattern of non-adhesive material forms is embedded into the upper surface of the second adhesive layer, each of said non-adhesive material forms having a top surface, wherein the top surfaces of the non-adhesive material forms are even with or below the plane of the upper surface of the second adhesive layer.

53. An adhesive article comprising:
a release liner having a release surface and a back surface;
a continuous layer of adhesive having an upper surface and a lower surface and end edges, wherein the upper surface of the adhesive is adhered to the release surface of the release liner; and
a pattern of non-adhesive material forms embedded into the lower surface of the adhesive layer, each of said non-adhesive material forms having a bottom surface, wherein the bottom surfaces of the non-adhesive material forms are even with, above, or below the plane of the lower surface of the adhesive layer.

54. The adhesive article of claim 53 wherein the non-adhesive material forms have an average thickness of about 30 nanometers to about 100 μ .

55. The adhesive article of claim 53 wherein the pattern of non-adhesive material forms are applied by vacuum metalization or sputtering.

56. The adhesive article of claim 53 wherein the non-adhesive material comprises a UV curable ink.

57. The adhesive article of claim 53 wherein the pattern of non-adhesive material forms comprises a plurality of dots, lines or combinations thereof.

58. The adhesive article of claim 57 wherein the lines of non-adhesive material have an average width of from about 12 μ to about 250 μ and an average thickness of from about 30 nanometers to about 100 μ .

59. The adhesive article of claim 57 wherein at least 50% of the lines intersect the end edges of the adhesive layer.

60. The adhesive article of claim 57 wherein the plurality of lines form a grid pattern.

61. The adhesive article of claim 53 wherein the adhesive layer comprises a pressure sensitive adhesive.

62. The adhesive article of claim 53 wherein the adhesive layer comprises a heat-activated adhesive.

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63. The adhesive article of claim 53 wherein the non-adhesive material comprises a porous non-adhesive material.

64. The adhesive article of claim 63 wherein the porous non-adhesive material comprises an elastomer.

65. The adhesive article of claim 53 further comprising a second release liner having a release surface, wherein said release surface is applied to the lower surface of the adhesive layer.

66. The adhesive article of claim 65 wherein the release surface of the second release liner has a textured surface.

67. The adhesive article of claim 66 wherein the release surface of the second release liner has a random texture.

68. The adhesive article of claim 66 wherein the release surface of the second release liner has a patterned finish.

69. The adhesive article of claim 66 wherein the lower surface of the adhesive layer has a textured surface that is complementary to the textured surface of the second release liner.

70. The adhesive article of claim 53 wherein the back surface of the release liner has a release coating thereon, the release coating having a higher release value than that of the release surface.

AVERP2850US

71. The adhesive article of claim 70 wherein the article is wound so that the patterned lower surface of the adhesive is in adhesive contact with the back surface of the release liner.

72. The adhesive article of claim 53 wherein the release surface of the release liner has a non-adhesive material printed thereon.

73. The adhesive article of claim 72 wherein the non-adhesive material printed on the release surface of the release liner is embedded into the release surface.

74. The adhesive article of claim 53 wherein the lower surface of the adhesive layer has randomly distributed non-adhesive particulate material embedded therein.